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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/666,630	09/20/2000	Kaushal Kurapati	US000240	5682
24737	7590	07/13/2005	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS			MA, JOHNNY	
P.O. BOX 3001			ART UNIT	PAPER NUMBER
BRIARCLIFF MANOR, NY 10510			2617	

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/666,630	KURAPATI, KAUSHAL	
	Examiner	Art Unit	
	Johnny Ma	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 26 April 2005.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-32 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____

DETAILED ACTION

It is noted that Applicant has failed to traverse the examiner's assertion of Official Notice, therefore the common knowledge or well-known in the art statements (i.e., creation of an intersection of sets of data and uniform random sampling) are taken to be admitted prior art.

Response to Arguments

1. Applicant's arguments filed 4/26/2005 have been fully considered but they are not persuasive. Applicant argues "applicant fails to see a teaching or suggestion in Bedard of making the comparison of actual recommender scores based on the viewing history sub-sets" (Remarks, pg, 11). The examiner respectfully disagrees, as discussed in the previous Office Action, the Bedard reference discloses ranking by relevance based on the amount of time the corresponding channels have been viewed during the viewer profile collection period (Bedard 6:35-46) wherein the amount of time the corresponding channel have been viewed serves as recommender scores and such scores are based on programs of the viewing history sub-sets (new entry and viewer profile array). Furthermore, the recommender scores based on the viewing history sub-sets are compared wherein the new entry (second subset) is compared to the viewer profile array (first subset) (Bedard 6:4-62).

Applicant further argues "there is simply no teaching or suggestion of a comparing of recommender scores based on the viewing history subsets that span different time intervals of an entire user viewing history." The examiner respectfully disagrees, as discussed in the previous Office Action, the Bedard reference discloses the overall selection history is established into "at least two portions [viewing history subsets]," by comparing recent selections to old selections to determine if the profile should be updated using weighted techniques (Bedard 6:33-63), the old

selections representing a different time interval, a prior time interval, from the recent selections time interval. Note, the Bedard reference discloses generating a corresponding set of program recommendation scores, S₁ and S_k, for a set of programs based on said at least two viewing history sub-sets, VH₁ and VH_k (Bedard 5:34-6:62). The examiner respectfully submits that Applicant's argument that "Bedard does not teach or suggest the generation of program recommendation scores, S₁ and S_k, for a set of programs in a given time interval based on their respective viewing history subsets appears to be directed against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Furthermore, regarding the Yoshinobu reference, the Bedard reference discloses maintaining a viewer profile that "can be used by an EPG to tailor display 400 so as to provide faster access to information concerning the viewer's preferred channels and/or programming histories" (Bedard 7:19-27) wherein program recommendation scores are generated (Bedard 5:34-6:62). However, the Bedard reference performs this function by taking the viewer profile history as a whole without regard to specific time intervals which may represent different time periods where a user may be more interested in different particular types of programming. Thus the Yoshinobu reference was relied upon for such a teaching, to account for types of programming that are frequently watched in a particular time period (Yoshinobu 12:1-58). Thus the Bedard and Yoshinobu combination as discussed below teaches the claimed generating a corresponding set of program recommendation scores, S₁ and S_k, for a set of programs in a given interval based on said at least two viewing history sub-sets VH₁ and VH_k.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bedard (US 5,801,747) in further view of Yoshinobu (US 5,734,444).

As to claims 1, 3, 16, 18, and 31, note the Bedard reference teaches a system and method for monitoring viewing history to determine programs to recommend to viewers.

The claimed apparatus, method, and article of manufacture “for identifying changes in television viewing preferences of an individual” are met by Bedard with reference to Figures 2 and 3 and corresponding methods described in detail below (see also Bedard 3:32-55). Bedard teaches computer executable instructions configured in memory to be executed by a processor for “obtaining a viewer history indicating a set of programs that have been watched by a user” as seen by the flowchart of Fig. 3 and taught in column 5, lines 6+, by tracking which programs are watched. A plurality of choices (Figs. 1,2) with respective records combine to form a user selection history. The overall selection history is established into “at least two viewing history sub-sets,” by comparing recent selections (subset 2) to old selections (subset 1) to determine if the profile should be updated using weighted techniques (Bedard 6:33-63). These selection histories are “profiles” in that they contain viewer record selections for the corresponding history period. The “profiles” are then updated by comparing the viewing units in order to “identify a change in user preferences” as illustrated by comparison step for adding new entries (Bedard

6:35-62) wherein the new entry is identified such that a comparison is inherent to the determination of whether an entry is new or preexisting. The claimed generating a corresponding set of program recommendation scores, S₁ and S_k, for a set of programs based on said at least two viewing history sub-sets, V_{H1} and V_{Hk} is met by ranking by relevance based on the amount of time the corresponding channels have been viewed during the viewer profile collection period (Bedard 6:35-46) wherein the “EPG of FIG. 5 can operate in conjunction with the viewer profile of the present invention to organize the individual channels in row 502 by viewer preference” (Bedard 7:39-41) “so as to provide faster access to information concerning the viewer’s preferred channels and/or programming categories” (Bedard 7:19-27). However, the Bedard reference is silent as to recommending programs in a given time interval. Now note the Yoshinobu reference that discloses a broadcast receiving apparatus that automatically records frequency watched programs. The claimed “programs in a given time interval” is met by the storing of channel history data for a given hour (Yoshinobu 10:30-31) wherein such data could be used (Yoshinobu 12:1-5) for suggesting programming to a user (Yoshinobu 13:13-64). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Bedard user viewing history recommendations with the Yoshinobu time periods for the purpose of providing user recommendations that are more closely tailored to a user’s typical viewing habits for a given period of time.

As to claims 11, 26 and 32, similar limitations are recited in claims 1, 16, and 31 with the additional limitation of deleting “a portion of said viewing history if said sets of program recommendation scores...are substantially similar.” This limitation is met by comparing current

and past selection histories and updating the records by maintaining a list of the most relevant past selections. Specifically, old entries may be replaced as taught in col. 5:59-60 or updated if they are similar but have different viewing units as taught in col. 5:44-48.

As to claims 2, 12, 17, and 27, the claimed comparing “the top-N (where N is a positive integer) recommended television programs in each set” is met by comparing the entries as taught in col. 6:35-39.

As to claims 4 and 19, the claimed “presenting a user with a set of recommended programs based on one or both of said sets of programs” is met by using the methods above and displaying a list of recommended programs as seen in Fig. 4 and taught in col. 7:14-28).

As to claims 5 and 20, the claimed “presenting a user with a union set of recommended programs based on said sets of programs” is taught by Bedard through building initial profile. While a profile is being built all entries, old and new will be saved while there is space as taught in col. 5:49-58. By keeping both old and new data, a union is formed.

As to claim 6 and 21, the claimed “presenting a user with an intersections set of recommended programs based said set of programs” is not specifically taught by Bedard. Examiner takes Official Notice that the creation of an intersection of sets of data is notoriously well known in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system and methods of Bedard by presenting users with a union of the two history sets in order to provide users with a list of elements that are in both the first and second sets.

As to claims 7 and 22, Bedard teaches giving weight to recently viewed programs (Bedard 6:44-46) and presenting users with a subset of recommendations (Bedard 8:24-30), but

not explicitly “displaying recommended programs based on a more recent sub-set of said viewing history.” Nevertheless the examiner gives Official Notice that it is notoriously well known in the art of providing recommendations to weight current values more heavily than older values for the purpose of providing recommendations that are more suited to a user’s current interests. Therefore, the examiner submits that it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Bedard display of recommendations accordingly for the above stated advantages.

As to claims 8, 13, 23, and 28, Bedard does not specifically teach “uniformly randomly sampling sub-sets of television programs from said viewing history” to form the viewing history. Examiner takes Official Notice that uniform random sampling is notoriously well known in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Bedard by using uniform random sampling in order to ensure that all elements of the television program set have an equal probability of being selected.

As to claims 9-10, 14-15, 24-25, and 29-30, the claimed selection of the two histories from “a time span that is less than the entire time period covered by the viewing history” is met by selecting from a user selection history over a period of recent viewing as taught in col. 5:34-41. These entries are compared to older entries to determine which should be removed in the case a profile is full (col. 5:19-27). The selected time span is a “similar” time period to a given time period in that they are both time periods with a duration.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnny Ma whose telephone number is (571) 272-7351. The examiner can normally be reached on 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jm


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